氣象及磁氣月報

東京

海軍水路部觀象臺

明治二十一年三月

MONTHLY REPORT

OF THE

METEOROLOGICAL AND MAGNETICAL OBSERVATIONS,

DURING

MARCH, 1888,

AT THE

NAVAL OBSERVATORY,

IN THE

HYDROGRAPHIC OFFICE.

TOKIO.

凡例

一晴雨計ハ氷點及海面ニ改正ス
一寒暖計ハ都テ華氏ノ度表ヲ用フ
一露點、濕氣、水氣張力、ハ燥濕兩球寒暖計ノ實驗ヨリ算出ス
一風ノ方向及速力ハ自記驗風儀ヲ以テ之ヲ測ル而シテ方向ハ八點ニ分チ速力ハ英里ヲ以テ算ス
一天候ノ表中降雨、降雪、靄霧、雲ノ種類ハ悉皆觀望ノ時數ヲ掲ゲ陰部ハ一日間全陰ヲ十トシ他ハ之ニ比例ス
又雨雪ノ水積ハ毎午前九時ニ實驗シ英寸ヲ以テ之ヲ示ス

一磁氣偏差ハ連日午前七時傾差及地平磁氣力ハ連月兩回之ヲ觀測ス
一此觀測ノ用器ハ偏差儀傾差儀及「ユーニファイラ」磁氣儀ナリ
一偏針角ノ觀測ニ於テ兩磁竿中心ノ相距ハ一、三英尺トス
一搖振時ノ觀測ニ用フル磁竿ノ尺度一劃分ノ價ハ二分、三七ナリ

NOTE.

The Barometer readings are reduced to freezing point (32° F) and sea level.

Dew point, Humidity and Elastic force of Vapour are deduced from the readings of the dry and wet bulb thermometers.

Direction and Velocity of Wind are measured by Beckley's anemograph.

The numbers under the headings of Rain, Snow, Fog and the kinds of Cloud (C. K. S. N. or Rain) denote how many, out of eight observations made in a day, are either of them.

The portion of sky obscured is determined by estimation after a careful scrutiny of the clouds or sky. A clear sky is denoted by 0, and a total obscuration by 10.

The amount of Rain and Snow are measured at 9 a. m.

The Magnetic declination is observed at 7 a. m. every day, the inclination and the horizonta intensity twice a month, the instruments in use being Declinometer, Inclinometer, and Unifilar Magnetometer. *

* The apparent distance between the centers of the deflecting and the suspending magnets in the observation of deflection = 1. 3 feet.

The angular value of one scale division of the vibration magnet = 2′.37.

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定價金拾六錢

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(Signed) Director.

M. Nakagawa.

Observers.

N. Itō.

Assistants.

K. Kanō.

K. Ozawa.

O. Hibi.

M. Shirai.

T. Nagaye.

REMARKS.

Day.

1 C., with S. at times 2 a.m.—8 p.m.; B.C. afterwards.
2 *f.p.* after 1 a.m.; N.W. w_2 9 a.m.—5 p.m.; E. at 1.33, 2.41 & 4.0 p.m.
3 *f.p.* in a.m.; C. after 5 p.m.; E. at 2.51 p.m.
4 C.; S. after 7.30 a.m.; N.w_2 in p.m.
5 S. till 4 a.m.; *f.p.* in p.m.; N. w_2 till 5 p.m.
6 C. after 8 a.m.; S. after 9.30 p.m.
7 S. ceased at 8 a.m.; C.; D. at 5 p.m.; *f.p.* after 8 p.m.
3 *d.* or B.C after 4 a.m.; *f.p.* after 5 p.m.
9 *f.p.*
10 *f.p.*; E. at 3.48 & 7.0 p.m.
11 *f.p.* in a.m.; BC. in p.m.; *f.p.* in night; N. & N.W. w_2 after 7 a.m.; E. at 4.01 p.m.
12 C.; *f.d.* at times in p.m.; N. & N.W. w_2 in a.m.
13 *d.*, with B. at times in a.m.; *f.p.*; C. after 5 p.m.; Sleet at 10.30 p.m.; E. at 11.54 a.m.
14 C. in a.m.; B. in p.m.; C. after 6 p.m.; S. at 9 p.m.
15 *f.p.* after 8 a.m.; *d.* in p.m.; *f.p.* in night; N. w_2 till 9 p.m.; E. at 4.03 p.m.
16 *f.p.*; B.C. at times after 8 a.m.; C. after 3 p.m.; S. after 10 p.m.
17 S. till 11 a.m.; C.; *f.d.* after 8 p.m.
18 *f.p.* after 4 a.m.; C. 7—11 p.m.; N.w_2 9 a.m.—5 p.m.; E. at 6.33 p.m.
19 *d.* or C. after 2 a.m.; D. after 4 p.m.; S. after 11 p.m.; E. at 2.33 p.m.
20 S. till 8 a.m.; *f.p.* in p.m.; N. w_2 after 2 a.m.
21 *f.p.*; B.C., with *d.* at times after 6 a.m.; *l.h.* after 6 p.m.; *f.p.* after 9 p.m.; N. & N.W. w_2 3 a.m—1 p.m.
22 *f.p.*; E. at 10.44 a.m.
23 *f.p.*; *d.* 5—8 a.m.; B.C. or *d.* after 3 p.m.; R. at 6 p.m.; L. at 7 p.m.; *l.h.* after 9 p.m.
24 *d.*, with B.C. at times in a.m.; C. in p.m.; R. with S. at intervals after 9 p.m.; E. & N.E. w_2 after 4 p.m.; E. at 2.32 a.m.
25 R. ceased at 2 a.m.; B. after 9 a.m.; C. after 6 p.m.
26 C.; R. 6 a.m.—5.10 p.m.; *f.p.* after 7.30 p.m.; N. & N.W. w_2 8 a.m.—6 p.m.; Barometer fallen exceedingly in p.m.
27 *f.p.*; *d.* at times after 6 p.m.; N. & N.W. w_2 throughout the day & night.
28 *f.p.* after 3.30 a.m.; C. at times after 3 p.m.
29 C. till 5 a.m.; *f.p.* afterwards; B.C. at times in p.m.

晴天 B. (Blue Sky). 陰天 C. (Cloudy Weather). 濛雨 D. (Drizzling, or Light Rain).
地震 E. (Earthquake). 霧 F. (Fog). 暗黒 G. (Dark, gloomy). 霰 H. (Hail).
霜 H. F. (Hoar Frost). 電 L. (Lightning). 濃霧 M. (Misty). 陰雲 O. (Overcast).
驟雨 P. (Passing shower). 嵐 Q. (Squally). 雨 R. (Rain). 雪 S. (Snow). 雷 T. (Thunder).
天氣險惡ノ模樣 U. (Ugly, threatening). 天氣不定 V. (Variable Weather). 露 W. (Dew).
霞霧 Z. (Hazy). 日暈 *s. h.* (Solar Halo). 月暈 *l. h.* (Lunar Halo). 虹 *r. b.* (Rainbow).
風 *w* (Wind). The force of wind is expressed by w_1, w_2, &c, as w_1= slight, w_5= strongest.
快晴 *f. p.* (Fine and pleasant). 薄晴 *f. d.* (Fine, but dull). 薄陰 *d.* (Dull).

記事

一日	陰午前二時過ヨリ午後八時頃マテ時々降雪同時後漸々半晴
二日	午前一時過ヨリ快晴同九時頃ヨリ午後五時頃マテ北西風少强　午後一時三十三分同二時四十一分及ヒ同四時零分頃地震ス
三日	午前快晴午後五時頃ヨリ陰　午後二時五十一分頃地震ス
四日	陰午前七時三十分頃ヨリ降雪午後北風少强
五日	午前四時頃雪歇ミ午後快晴同五時頃マテ北風少强
六日	午前八時後漸々陰午後九時三十分頃ヨリ降雪
七日	午前八時頃雪歇ミ爾後陰午後五時過暫時細雨同八時後快晴
八日	午前四時過ヨリ薄陰或ハ半晴午後五時過ヨリ快晴
九日	快晴
十日	快晴　午後三時四十八分及ヒ同七時零分頃地震ス
十一日	午前快晴午後半晴夜間再ヒ快晴午前七時後北及ヒ北西風少强　午後四時一分頃地震ス
十二日	陰午後時々薄晴午前北及ヒ北西風少强
十三日	午前薄陰時々晴午後快晴同五時後陰同十時三十分頃暫時霙降ル　午前十一時五十四分頃地震ス
十四日	午前陰午後漸々晴同六時後再ヒ陰同九時頃暫時微雪ス
十五日	午前八時後快晴午後薄陰夜間復快晴同九時頃マテ北風少强　午後四時三分頃地震ス
十六日	快晴午前八時後時々半晴午後三時頃ヨリ陰同十時頃ヨリ降雪
十七日	午前十一時頃マテ降雪爾後陰午後八時後薄晴
十八日	午前四時頃ヨリ快晴午後七時頃ヨリ同十一時頃マテ陰午前九時ヨリ午後五時頃マテ北風少强　午後六時三十三分頃地震ス
十九日	午前二時後薄陰或ハ陰午後四時頃ヨリ微雨同十一時後雪ニ變ス　午後二時三十三分頃地震ス
二十日	午前八時頃マテ降雪午後漸次快晴午前二時後北風少强
廿一日	快晴午前六時後半晴時々薄陰午後六時頃ヨリ月暈ヲ帯フ同九時後再ヒ快晴午前三時頃ヨリ午後一時頃マテ北及北西風少强
廿二日	快晴午前十時四十四分頃地震ス
廿三日	快晴午前五時過ヨリ同八時頃マテ薄陰午後三時後半晴或ハ薄陰同六時頃暫時降雨シ同七時頃電光アリ同九時頃月暈ヲ帯フ
廿四日	午前薄陰時々半晴午後陰同九時後雨雪交降ス午後四時後東及ヒ北東風少强　午前二時卅二分頃地震ス
廿五日	午前二時頃雨歇ミ同九時過ヨリ漸々晴午後六時後陰
廿六日	陰午前六時過ヨリ午後五時十分頃マテ降雨同七時三十分頃ヨリ快晴午前八時頃ヨリ午後六時頃マテ北及北西風少强　午後晴雨計殊ニ降下ス
廿七日	快晴午後六時頃ヨリ時々薄陰晝夜北及ヒ北西風少强
廿八日	午前三時三十分頃ヨリ快晴午後三時後時々陰
廿九日	午前五時頃マテ陰爾後快晴午後時々半晴

地平磁氣力
HORIZONTAL INTENSITY.

Commenced 3^d 2^h 45^m P. M.
Ended 3 3 45

三日午後二時四十五分ヨリ同三時四十五分ニ至ル

偏針角 Deflections.

磁竿 Mag.	北端 North end.	No.	A ° ′ ″	B ′ ″	Mean. ′ ″	No.	A ° ′ ″	B ′ ″	Mean. ′ ″
東 East.	E.	1	182 4 10	3 20	3 45				
	W.					2	175 42 40	42 0	42 20
	E.	3	182 4 10	3 20	3 45				
	W.					4	175 43 0	42 10	42 35
	E.	5	182 4 20	3 30	3 55				
平均 Means		182° 3′ 48″ .3				…………… 175° 42′ 27″.5			
西 West.	W.					6	175 41 10	40 20	40 45
	E.	7	182 0 40	0 0	0 20				
	W.					8	175 41 50	41 0	41 25
	E.	9	182 0 40	0 0	0 20				
	W.					10	175 42 0	41 20	41 40
平均 Means.		182° 0′ 20″.0				………… 175° 41′ 15″.0			

平均溫度 Mean Temperature $t = 48°.0$ fah
偏針角 Angle of Deflection $u = 3° \ 10′ \ 4″.0$

搖振時 Oscillations.

振數 No. of Osc.	測時 Time. h m s	溫度 Temp. °	尺度兩端之視閱數 Extreme Scale-readings.		百振之時 Time of 100 Oscillations. m s
0	2 28 50.8	48.8	5.0	55.2	
10	29 36.2				
20	30 21.5				
31	31 11.8				
41	31 57.1				
51	32 42.7				
100	36 25.2				7 34.4
110	37 10.8				34.6
120	37 56.3				34.8
131	38 46.3				34.5
141	39 31.8				34.6
151	40 17.2	49.0	15.2	44.8	34.5
平均 Means.		48.9	………………………		7 34.57

捩振差 Mean effect of 90° of Torsion $v = 2.31$
時儀日差 Daily rate $s = 6.^s09$ Losing.

成果 Resulting absolute value X = 6.3295

Commenced 19^d 4^h 11^m P. M.
Ended 19 5 20

十九日午後四時十一分ヨリ同五時二十分ニ至ル

偏針角 Deflections.

磁竿 Mag.	北端 North end.	No.	A ° ′ ″	B ′ ″	Mean. ′ ″	No.	A ° ′ ″	B ′ ″	Mean. ′ ″
東 East.	E.	1	8 2 50	2 0	2 25				
	W.					2	1 41 30	40 50	41 10
	E.	3	8 2 20	1 40	2 0				
	W.					4	1 41 0	40 10	40 35
	E.	5	8 2 30	1 50	2 5				
平均 Means.		8° 2′ 10″.0				…………… 1° 40′ 52″.5			
西 West.	W.					6	1 40 30	40 10	40 20
	E.	7	7 59 10	58 40	58 55				
	W.					8	1 40 30	39 50	40 10
	E.	9	7 59 10	59 20	59 35				
	W.					10	1 40 30	40 0	40 15
平均 Means.		7° 59′ 15″.0				………… 1° 40′ 15″.0			

平均溫度 Mean Temperature $t = 43°.5$ fah.
偏針角 Angle of Deflection $u = 3° 10′ 4″.4$

搖振時 Oscillations.

振數 No. of Osc.	測時 Time. h m s	溫度 Temp. °	尺度兩端之視閱數 Extreme Scale-readings.		百振之時 Time of 100 Oscillations. m s
0	4 50 27.5	40.0	0.8	56.9	
10	51 12.9				
20	51 58.3				
31	52 47.8				
41	53 33.3				
51	54 18.8				
100	58 2.3				7 34.8
110	58 47.7				34.8
120	59 33.1				34.8
131	5 0 22.3				34.5
141	1 7.8				34.5
151	1 53.3	41.0	20.5	39.5	34.5
平均 Means.		40.5	………………………		7 34.65

捩振差 Mean effect of 90° of Torsion $v = 2.54$
時儀日差 Daily rate $s = 7^s.87$ Losing.

成果 Resulting absolute value X = 6.3264

磁氣觀測之月報
東京海軍觀象臺

MONTHLY REPORT OF THE MAGNETICAL OBSERVATIONS, NAVAL OBSERVATORY, TOKIO.

磁氣偏差
Magnetic Declination.

Day.	° ′	Day.	° ′	Day.	° ′	Day.	° ′	Day.	° ′	Day.	° ′	Day.	° ′	Day.	° ′
1	4 9.3	5	4 11.6	9	4 11.7	13	4 12.5	17	4 12.0	21	4 11.4	25	4 10.9	29	4 10.1
2	4 8.6	6	4 9.8	10	4 12.3	14	4 11.9	18	4 11.3	22	4 13.5	26	4 9.0		
3	4 8.2	7	4 12.6	11	4 10.8	15	4 11.6	19	4 13.1	23	4 10.5	27	4 9.8		
4	4 9.5	8	4 12.6	12	4 12.1	16	4 11.4	20	4 11.0	24	4 9.9	28	4 9.0		

平均 Mean = 4° 10′.91

磁氣傾差
Magnetic Inclination.

Commenced 3 d 4h 20m P. M.
Ended 3 4 45

三日午後四時二十分ヨリ同時四十五分ニ至ル

極端 A Polarity of Marked end A.								極端 B Polarity of Marked end B.							
東面圈 Circle E.				西面圈 Circle W.				西面圈 Circle W.				東面圈 Circle E.			
東面針 Face E.		西面針 Face W.		東面針 Face E.		西面針 Face W.		西面針 Face W.		東面針 Face E.		西面針 Face W.		東面針 Face E.	
A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
49 41	49 40	50 0	49 59	49 40	49 37	49 16	49 13	49 48	49 50	49 21	49 23	49 57	49 57	50 2	50 4
49 42	49 40	49 59	49 56	49 36	49 33	49 17	49 15	49 43	49 42	49 24	49 25	49 49	49 50	49 59	50 1
49 41.5	49 40.0	49 59.5	49 57.5	49 38.0	49 35.0	49 16.5	49 14.0	49 45.5	49 46.0	49 22.5	49 24.0	49 53.0	49 53.5	50 0.5	50 2.5
49 40.7		49 58.5		49 36.5		49 15.3		49 45.8		49 23.2		49 53.3		50 1.5	
49 49.6				49 25.9				49 34.5				49 57.4			
49 37.7								49 46.0							

成果 Resulting Dip = 49° 41′.9

Commenced 19d 7h 32m P. M.
Ended 19 8 0

十九日午後七時三十二分ヨリ同八時〇分ニ至ル

極端 A Polarity of Marked end A.								極端 B Polarity of Marked end B.							
東面圈 Circle E.				西面圈 Circle W.				西面圈 Circle W.				東面圈 Circle E.			
東面針 Face E.		西面針 Face W.		東面針 Face E.		西面針 Face W.		西面針 Face W.		東面針 Face E.		西面針 Face W.		東面針 Face E.	
A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
49 50	49 47	49 27	49 24	49 44	49 41	49 24	49 21	49 12	49 15	49 47	49 50	49 40	49 44	50 15	50 17
49 55	49 51	49 24	49 21	49 45	49 41	49 30	49 26	49 19	49 22	49 50	49 54	49 39	49 42	50 16	50 19
49 52.5	49 49.0	49 25.5	49 22.5	49 44.5	49 41.0	49 27.0	49 23.5	49 15.5	49 18.5	49 48.5	49 52.0	49 39.5	49 43.0	50 16.5	50 18.0
49 50.8		49 24.0		49 42.8		49 25.0		49 17.0		49 50.2		49 41.2		50 16.8	
49 37.4				49 34.0				49 33.6				49 59.0			
49 35.7								49 46.3							

成果 Resulting Dip = 49° 41′.0

天候 WEATHER.

日次 Date.	雲之種類 Kind of Cloud. 巻雲 Cirrus.	積雲 Cumulus.	層雲 Stratus.	巻積雲 Cirro-Cumulus.	巻層雲 Cirro-Stratus	積層雲 Cumulo-Stratus.	巻積層雲 Cirro-Cumulo-Stratus.	降雨 Rain.	降雪 Snow.	靄霧 Fog.	全晴 Clear.	陰部 Obscured part.	雨雪水量 Amount of Rain & Snow.
													in
1	...	...	3	1	1	2	...	...	1	...	...	8.9	...
2	1	3	...	...	...	...	...	...	...	...	4	0.5	0.02
3	2	1	3	...	1	...	...	...	...	...	1	5.1	...
4	...	...	2	...	...	...	...	...	6	...	...	10.0	...
5	...	...	1	1	1	...	...	...	1	...	4	4.4	0.41
6	...	...	5	...	1	1	...	...	1	...	...	8.1	...
7	...	1	3	...	...	1	...	...	2	...	1	7.6	...
8	1	1	2	...	...	1	...	...	...	...	3	4.1	...
9	...	3	...	...	...	...	...	...	...	...	5	0.4	...
10	1	2	1	1	...	...	...	...	...	...	3	1.8	...
11	...	1	...	1	...	2	...	...	...	...	4	2.4	...
12	...	...	6	1	...	1	...	...	...	...	...	9.5	...
13	...	4	...	1	2	...	1	...	...	...	...	6.6	...
14	...	1	5	1	...	...	...	...	1	...	...	8.6	...
15	...	3	1	2	...	...	...	...	...	...	2	4.9	...
16	...	...	1	5	...	1	...	...	1	...	...	7.1	...
17	...	...	2	3	...	...	...	...	3	...	...	9.5	0.10
18	...	...	1	1	...	2	...	...	...	...	4	2.6	...
19	...	1	2	...	1	2	...	1	1	...	...	9.6	0.19
20	...	1	1	...	1	1	...	...	2	...	2	5.3	...
21	1	...	3	1	2	...	...	...	...	...	1	3.5	...
22	5	...	1	...	...	...	...	...	...	...	2	0.8	...
23	3	2	...	1	1	1	...	...	...	...	...	4 8	...
24	...	1	1	1	3	...	...	2	...	...	...	9.0	...
25	1	...	2	...	2	3	...	...	...	...	...	7.5	0.01
26	...	1	1	1	...	1	...	3	...	...	1	7.9	...
27	...	2	...	...	...	1	...	...	...	...	5	2.4	0.70
28	1	2	...	...	...	2	...	...	...	...	3	3.5	...
29	1	2	...	1	2	...	...	...	...	...	2	3.5	...
合計 Sums.	17	32	47	23	18	22	1	6	19	...	47	...	1.43
平均 Mean.	...	...	...	...	...	...	...	...	...	...	...	5.5	...

風 WIND.

日次 Date.	平穩時數 Hours of Calm	北 N. 時數 Number of Hours.	北 N. 速力 Number of Miles.	東北 N E. 時數 Number of Hours.	東北 N E. 速力 Number of Miles.	東 E. 時數 Number of Hours.	東 E. 速力 Number of Miles.	東南 S. E. 時數 Number of Hours.	東南 S. E. 速力 Number of Miles.	南 S. 時數 Number of Hours.	南 S. 速力 Number of Miles.	西南 S. W. 時數 Number of Hours.	西南 S. W. 速力 Number of Miles.	西 W. 時數 Number of Hours.	西 W. 速力 Number of Miles.	西北 N. W. 時數 Number of Hours.	西北 N. W. 速力 Number of Miles.	計合 Total 時數 Number of Hours.	計合 Total 速力 Number of Miles.	最强 Strongest 方位 Directions.	最强 Strongest 速力 Miles.
1	...	8	70.1	8	54.1	7	39.4	1	3.2	...	...	...	...	...	...	...	...	24	166.8	N.	11.4
2	...	18	133.4	...	...	...	...	...	...	...	...	...	...	...	...	6	88.7	24	222.1	N.W.	16.3
3	...	12	29.4	2	9.6	5	20.9	5	21.2	...	...	...	...	...	...	...	...	24	81.1	N.	5.6
4	...	23	303.6	1	5.6	...	...	...	...	...	...	...	...	...	...	...	...	24	309.2	N.	20.6
5	...	24	314.3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	24	314 3	N.	21.3
6	...	14	64.0	7	31.9	3	10.6	...	...	...	...	...	...	...	...	...	...	24	106.5	N.	6.7
7	...	23	128.6	1	6.7	...	...	...	...	...	...	...	...	...	...	...	...	24	135.3	N.	10.9
8	...	11	31.7	2	9.8	...	...	3	15.8	...	...	7	66.6	1	4.8	..	...	24	128.7	S. W.	17.3
9	...	7	59.2	...	...	...	...	1	4.6	...	...	...	...	4	18.2	12	86.3	24	168.3	N.W.	15.2
10	...	2	21.1	...	...	...	...	11	45.6	..	...	...	...	...	...	11	81.3	24	148.0	N.	12 3
11	...	11	178.4	...	...	...	...	5	9.9	2	21.8	1	13.5	1	10.6	4	79.0	24	313.2	N.W.	*29.2
12	...	19	191.6	...	...	...	...	...	...	...	...	...	...	...	...	5	79.0	24	270.6	N.W.	17.8
13	...	12	77.0	...	...	4	15.6	8	36.0	...	...	...	...	...	...	...	...	24	128.6	N.	10.7
14	...	18	147.5	3	24.8	...	...	3	16.4	...	...	...	...	...	...	...	...	24	188.7	N.	15.1
15	...	24	289.1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	24	289.1	N.	21.0
16	...	13	95.1	1	3.2	...	...	...	...	10	33.3	...	...	...	...	..	...	24	131.6	N.	14.4
17	...	6	44.9	4	21.3	12	33.0	2	6.0	...	...	...	...	...	...	...	...	24	105.2	N.	8.3
18	...	22	192.3	...	...	1	2.5	..	...	...	...	...	...	...	...	1	14.4	24	209.2	N.	19.9
19	...	11	21.3	7	31.0	3	12.9	3	13.7	...	...	...	...	...	...	...	...	24	78.9	N. E	6.1
20	...	21	283.9	1	14.2	...	...	...	...	...	...	...	...	..	...	2	33.3	24	331.4	N.	18.7
21	...	7	69.5	1	5.2	1	4.8	6	26.2	...	...	...	...	...	...	9	100.9	24	206.6	N.	16.7
22	...	12	85.6	...	...	1	3.2	3	21.8	5	27.4	...	...	...	...	3	24.8	24	162.8	S.	11.3
23	...	11	86.6	4	24.4	2	20 7	6	53.5	...	...	...	...	...	...	1	9.7	24	194.9	N.	11.5
24	...	2	13.3	8	81.6	3	41.6	4	25.1	...	...	...	...	...	...	7	51.9	24	213.5	E.	16 0
25	...	10	53.6	2	9.2	4	34.4	8	62.5	...	...	...	..	...	...	...	...	24	159.7	S. E.	10.0
26	...	8	79.7	2	6.3	...	...	...	...	...	...	2	5.4	1	4.7	11	106.4	24	202.5	N W.	18.4
27	...	12	199.6	...	...	...	...	...	...	...	...	...	...	1	13.1	11	172.2	24	384.9	N.	23.8
28	...	...	...	..	...	...	...	8	47.2	...	...	...	...	1	8.1	15	130.1	24	185.4	N.W.	17 7
29	...	15	158.8	2	23.8	..	...	...	...	...	...	...	...	...	...	7	66.4	24	249.0	N. E.	14.2
計合 Sums.	...	376	3423.2	56	362.7	46	239.6	77	408.7	17	82.5	10	85.5	9	59.5	105	1124.4	696	5786.1	..	...
極强 Max.	...		...	..	...	..	...	..	...	..	...	..	...	..	...	..	...	..	...	N.W.	29.2

濕氣百分數

HUMIDITY.

(Saturation = 100)

日次 Date.	午前三時 3 A. M.	午前六時 6 A. M.	午前九時 9 A. M.	正午 Noon.	午後三時 3 P. M.	午後六時 6 P. M.	午後九時 9 P. M.	正子 Midnight.
1	65	94	75	74	73	80	96	57
2	58	53	58	50	49	76	82	88
3	72	92	76	51	58	71	67	79
4	71	73	90	93	92	92	91	96
5	74	79	78	60	48	76	51	54
6	54	72	65	70	47	68	77	93
7	95	93	88	69	84	91	96	92
8	96	94	90	74	61	55	67	74
9	91	55	47	39	38	45	57	54
10	51	52	51	45	45	62	73	80
11	87	68	60	51	47	47	64	53
12	58	59	67	50	37	60	58	57
13	58	55	56	43	52	61	67	77
14	87	69	65	52	54	48	77	58
15	56	60	61	42	43	50	60	50
16	51	52	63	44	53	62	61	91
17	91	92	91	74	65	71	73	96
18	78	87	55	42	42	48	52	55
19	56	64	58	41	52	78	91	87
20	95	94	88	49	43	48	48	54
21	53	57	57	38	41	64	60	52
22	63	57	61	52	58	68	68	61
23	64	65	57	57	50	74	79	91
24	88	89	75	64	60	71	70	84
25	77	92	62	56	55	73	74	72
26	80	79	94	98	98	98	94	97
27	57	53	54	46	57	49	57	53
28	53	56	50	43	46	39	66	60
29	63	58	59	48	42	48	55	64
平均 Means.	70	71	67	56	55	65	70	72

水氣張力

ELASTIC FORCE OF VAPOUR.

日次 Date.	午前三時 3 A. M.	午前六時 6 A. M.	午前九時 9 A. M.	正午 Noon.	午後三時 3 P. M.	午後六時 6 P. M.	午後九時 9 P. M.	正子 Midnight.
	in	in	in	in	in	in	in	in
1	0.133	0.173	0.142	0.149	0.166	0.163	0.180	0.096
2	0.085	0.079	0.111	0.120	0.124	0.146	0.125	0.126
3	0.090	0.092	0.178	0.139	0.174	0.168	0.154	0.162
4	0.131	0.133	0.160	0.169	0.168	0.154	0.149	0.161
5	0.134	0.142	0.165	0.135	0.127	0.154	0.091	0.082
6	0.081	0.089	0.108	0.156	0.122	0.152	0.156	0.159
7	0.160	0.158	0.165	0.158	0.231	0.235	0.233	0.174
8	0.190	0.194	0.237	0.237	0.238	0.175	0.178	0.166
9	0.176	0.114	0.136	0.150	0.130	0.122	0.117	0.111
10	0.096	0.098	0.117	0.143	0.158	0.162	0.158	0.138
11	0.136	0.125	0.159	0.186	0.138	0.105	0.126	0.098
12	0.107	0.110	0.136	0.121	0.107	0.136	0.118	0.113
13	0.093	0.085	0.100	0.115	0.151	0.152	0.166	0.172
14	0.172	0.133	0.134	0.153	0.188	0.135	0.168	0.116
15	0.101	0.103	0.127	0.113	0.114	0.115	0.113	0.083
16	0.076	0.074	0.127	0.122	0.140	0.154	0.150	0.183
17	0.166	0.164	0.162	0.151	0.145	0.152	0.153	0.178
18	0.141	0.134	0.126	0.122	0.128	0.112	0.112	0.093
19	0.090	0.103	0.114	0.112	0.142	0.178	0.190	0.186
20	0.196	0.177	0.176	0.134	0.135	0.111	0.095	0.099
21	0.093	0.098	0.134	0.113	0.139	0.157	0.128	0.093
22	0.096	0.084	0.134	0.188	0.208	0.218	0.172	0.146
23	0.127	0.125	0.148	0.199	0.193	0.230	0.208	0.187
24	0.177	0.175	0.196	0.238	0.220	0.182	0.172	0.184
25	0.158	0.173	0.137	0.170	0.179	0.186	0.181	0.162
26	0.170	0.168	0.182	0.201	0.206	0.196	0.177	0.176
27	0.124	0.109	0.125	0.119	0.154	0.111	0.106	0.095
28	0.098	0.101	0.124	0.141	0.150	0.132	0.163	0.127
29	0.119	0.096	0.133	0.154	0.157	0.133	0.106	0.116
平均 Means.	0.128	0.124	0.145	0.152	0.160	0.156	0.150	0.137

露點温度

DEW POINT.

日次 Date.	午前三時 3 A. M.	午前六時 6 A. M.	午前九時 9 A. M.	正午 Noon.	午後三時 3 P. M.	午後六時 6 P. M.	午後九時 9 P. M.	正子 Midnight.
	°	°	°	°	°	°	°	
1	24.6	30.9	26.1	27.4	29.9	29.5	31.9	17.6
2	14.7	13.3	20.7	22.5	23.2	26.9	23.3	23.4
3	16.0	16.5	31.6	25.7	31.1	30.2	28.1	29.3
4	21.3	24.7	29.0	30.3	30.2	28.1	27.3	29.2
5	24.8	26.2	29.7	25.0	23.7	28.2	16.4	14.2
6	13.7	15.7	20.1	28.5	22.9	27.9	28.5	28.9
7	29.1	28.8	29.7	28.8	38.2	38.7	38.5	31.1
8	33.3	33.8	38.9	38.9	39.1	31.2	31.6	29.9
9	31.4	21.2	25.1	27.5	24.2	22.8	21.8	20.6
10	17.5	18.0	21.9	26.3	28.8	29.4	28.7	25.5
11	25.2	23.4	28.9	32.7	25.5	19.4	23.5	18.0
12	19.9	20.5	25.1	22.6	19.8	25.2	22.0	21.0
13	17.6	14.7	18.5	21.5	27.6	27.8	29.9	30.7
14	30.7	24.6	24.9	28.0	33.1	25.0	30.2	21.6
15	18.7	19.0	23.7	21.0	21.2	21.5	21.0	14.3
16	12.6	12.1	23.6	22.9	25.8	28.1	27.5	32.3
17	29.9	29.6	29.4	27.7	26.6	27.9	28.0	31.6
18	26.0	24.9	23.5	22.9	23.8	20.9	20.8	16.8
19	16.1	19.0	21.2	20.8	26.1	31.6	33.3	32.7
20	34.0	31.5	31.3	24.9	25.0	20.6	17.4	18.2
21	16.8	18.0	24.8	21.0	25.6	28.6	23.9	16.7
22	17.5	14.5	24.9	33.1	35.6	36.7	30.8	2[illegible].9
23	23.7	23.3	27.1	34.4	33.7	38.1	35.6	32.9
24	31.5	31.2	34.0	30.0	37.0	32.2	30.8	32.4
25	28.8	30.9	25.4	30.5	31.8	32.8	32.0	29.3
26	30.4	30.1	32.1	34.7	35.3	34.0	31.5	31.3
27	23.2	20.2	23.3	22.3	28.2	20.6	19.7	17.4
28	18.1	18.7	23.2	26.0	27.5	24.5	29.5	23.7
29	22.2	17.6	24.6	28.1	28.6	24.7	19.6	21.7
平均 Means.	23.2	22.5	26.3	27.4	28.6	28.0	27.0	24.8

日次 Date.	寒暖計 THERMOMETER. 午前三時 3 A. M.	午前六時 6 A. M.	午前九時 9 A. M.	正午 Noon.	午後三時 3 P. M.	午後六時 6 P. M.	午後九時 9 P. M.	正子 Midnight.
	°	°	°	°	°	°	°	°
1	35.0	32.5	33.0	34.8	37.3	34.8	32.8	30.5
2	27.0	27.4	33.6	39.3	40.7	33.5	27.9	26.3
3	23.2	18.2	38.6	42.7	45.0	38.6	38.0	35.0
4	32.3	32.0	31.2	32.0	32.2	30.2	29.5	30.0
5	31.3	31.5	33.0	38.0	41.9	34.8	32.0	28.0
6	27.3	23.0	29.8	37.2	41.7	37.6	34.8	30.5
7	30.3	30.4	33.0	38.0	42.6	41.2	39.4	33.2
8	34.4	35.4	40.5	46.8	52 2	46.7	41.6	37.3
9	33.7	35.6	43.7	51.8	48.7	42.3	35.5	35.1
10	32 8	33.0	38.0	46.5	49.5	41.7	36.3	30.5
11	28.2	32.5	41.8	50.0	44 5	37.2	34.0	32.8
12	32.5	32.9	35.0	39.6	43.7	38.2	35.0	34.0
13	30.0	28.2	32.2	42.0	44.0	40.3	39.8	37.2
14	34.0	33.5	35.2	44.3	49.3	43.0	36.9	34.8
15	32.0	30.6	35.8	42.3	42.0	38.5	33.0	29.7
16	28.0	26.6	34.4	43.1	41.8	40.0	40.0	34.7
17	32 2	31.4	31.8	35.0	37.2	36.5	35.4	32.5
18	31.6	28.0	37.8	44.0	45.3	39.0	36.2	30.5
19	29.4	29.1	34.0	43.0	42.8	37.9	34.4	36.2
20	35.3	33.0	34.5	42.6	46.3	38.0	34.0	32 2
21	31.1	31.0	38.4	44.8	48.1	39.9	36.1	32.0
22	28.1	27.2	37.0	50.5	50.0	45 5	40.4	39.5
23	34.1	33.6	41.3	49.0	51.9	45.8	41.7	35.2
24	34.7	34.0	41.2	50.8	50.3	41.2	40.0	36.7
25	35.0	33.0	37.0	45.5	47.0	41.0	39.8	38.7
26	35.9	35.8	33.5	35.2	35.8	34.5	33.0	32.0
27	36.8	35.0	38.5	41.2	42.4	37.7	32.7	32.0
28	32.9	32.0	40.1	47.0	47.9	48 5	39.8	35.9
29	33.0	30.0	37.3	46.8	51.0	43.0	36.2	32.2
平均 Means.	31.8	30.9	36.2	42.9	44 6	39.6	36.1	33.3

改正晴雨計

BAROMETER.

Reduced to 32° F. and sea level.

日次 Date.	午前三時 3 A. M.	午前六時 6 A. M.	午前九時 9 A. M.	正午 Noon.	午後三時 3 P. M.	午後六時 6 P. M.	午後九時 9 P. M.	正子 Midnight.
	in	in	in	in	in	in	in	in
1	29.878	29.851	29.876	29.828	29.811	29.846	29.933	29.898
2	29.924	29.990	30.090	30.110	30.150	30.249	30.312	30.300
3	30.299	30.299	30.311	30.259	30.208	30.219	30.211	30.202
4	30.205	30.204	30.235	30.180	30.106	30.099	30.061	29.999
5	29.961	29.973	30.042	30.056	30.076	30.212	30.264	30.282
6	30.300	30.338	30.363	30.343	30.258	30.238	30.207	30.168
7	30.089	30.058	30.060	30.008	29.955	29.970	29.988	29.963
8	29.946	29.964	29.970	29.923	29.836	29.781	29.801	29.7[illegible]3
9	29.780	29.844	29.931	29.948	29.929	29.979	30.013	30.032
10	30.033	30.053	30.070	30.043	29.972	29.940	29.960	29.917
11	29.844	29.720	29.695	29.685	29.714	29.836	29.873	29.894
12	29.902	29.964	30.004	29.977	29.963	30.002	30.061	30.075
13	30.090	30.112	30.149	30.103	30.055	30.057	30.055	30.037
14	29.974	29.950	29.956	29.913	29.867	29.901	29.937	29.985
15	30.005	30.061	30.103	30.099	30.059	30.115	30.154	30.156
16	30.165	30.174	30.191	30.151	30.059	30.099	30.090	30.078
17	30.038	30.026	30.044	30.044	30.022	30.039	30.094	30.090
18	30.104	30.121	30.181	30.170	30.134	30.209	30.246	30.233
19	30.227	30.203	30.226	30.159	30.089	30.062	30.046	29.983
20	29.926	29.899	29.926	29.941	29.926	30.012	30.085	30.112
21	30.116	30.173	30.220	30.226	30.187	30.214	30.234	30.246
22	30.215	30.181	30.162	30.108	29.989	29.980	30.005	30.025
23	30.029	30.048	30.119	30.094	29.997	30.009	30.045	30.034
24	30.038	30.042	30.049	30.044	30.030	30.146	30.166	30.211
25	30.228	30.241	30.294	30.229	30.200	30.177	30.211	30.182
26	30.101	30.040	29.960	29.747	29.516	29.441	29.480	29.550
27	29.676	29.759	29.814	29.843	29.837	29.884	29.956	29.978
28	29.981	30.057	30.129	30.127	30.100	30.099	30.118	30.116
29	30.103	30.116	30.154	30.152	30.121	30.195	30.238	30.321
平均 Means.	30.041	30.050	30.080	30.052	30.006	30.032	30.063	30.063

氣象觀測之月報

東京海軍觀象臺

MONTHLY REPORT

OF THE

METEOROLOGICAL OBSERVATIONS,

NAVAL OBSERVATORY, TOKIO.

Lat. 35° 39′ 17″5 N. Long. 139° 44′ 30″3 E. Height above sea-level 70 feet.

日次 Date.	改正晴雨計 Barometer. Reduced to 32° F. & sea level. 平均 Mean.	極高 Max.	極低 Min.	寒暖計 Thermometer. 平均 Mean.	極高 Max.	極低 Min.	露點温度 平均 Mean Temp. of Dew point.	水氣張力 平均 Mean elastic force of Vapour.	濕氣百分數 平均 Mean Humidity (Sat.=100).	無氣中日射熱 極高 Vacuum solar radiation Max.	日射熱 極高 Solar radiation Max.	地射熱 極低 Terrestrial radiation Min.
	in	in	in	°	°	°	°	in		°	°	°
1	29 865	29.933	29.811	33.8	44.9	30.0	27 2	0.150	77	91.0	57.8	20.2
2	30.141	30.312	29.924	32.0	41.5	25.0	21.0	0.115	64	107.5	63.5	13.8
3	30.251	30.311	30 202	34.9	46.1	*17.0	26.1	0.145	71	111.1	69.7	* 5.8
4	30.136	30.235	29.999	31.2	35.2	27 7	27.9	0.153	87	60.0	36.4	23.5
5	30.108	30.282	29.961	33.8	41.9	27.0	23 5	0.129	65	104 5	56.5	13.5
6	30.277	*30.363	30.168	32.7	41.7	22 0	23 3	0.128	68	97 8	62.0	11.8
7	30.011	30.089	29.955	36.0	43.0	29.0	32.9	0.189	89	70.8	51.7	20.0
8	29.872	29.970	29.753	41.9	52.7	31 7	34.6	0.202	76	123 0	80.0	19 3
9	29.932	30.032	29.780	40.8	*53.7	30 9	24 3	0.132	53	126.0	*85.3	15.5
10	29.999	30.070	29.917	38 5	50.8	30.5	24 5	0.134	57	117.4	75.8	15.5
11	29.783	29.894	29.685	37.6	50.2	25.5	24 6	0.134	60	124.5	76.5	13.0
12	29.994	30 075	29.902	36.4	43.7	31 2	22 0	0.119	56	79.0	58.2	21.5
13	30 082	30.149	30.037	36.7	45 3	27.0	23.5	0 130	59	111.1	61.1	14.8
14	29.935	29.985	29.867	38 9	49.5	32 0	27.3	0.150	64	108.0	70.6	26.0
15	30.004	30.156	30.005	35.5	43.7	28 0	20.1	0.109	53	117.5	67.3	15.4
16	30.126	30.191	30.059	36 1	46.8	24 7	23.1	0.128	60	114.0	69 5	10.0
17	30.050	30.094	30.022	34.0	37.2	30.0	28.8	0.159	82	70.0	52.5	22.5
18	30.175	30.246	30.104	36.6	46.0	26.4	22.5	0.121	58	114.5	68 1	14.0
19	30.124	30.227	29.983	35.9	43.7	27.5	25.1	0.139	66	75.0	55.0	12.0
20	29.978	30.112	29.899	37.0	46.3	31.0	25.4	0.140	65	113 7	64.7	19.4
21	30 202	30.246	30 116	37.7	49.7	29.0	21.9	0.119	53	116.0	71.7	17.0
22	30.083	30.215	29.980	39 8	51.7	26.0	27.5	0.153	61	120 0	76 8	16.4
23	30.047	30.119	29.997	41 6	52.2	31.1	31.1	0 177	67	118.5	75.0	17.9
24	30.091	30.211	30.030	41.1	52.8	31.5	33.5	0.193	75	*128.8	83.0	20 2
25	30.220	30.294	30.177	39.6	47.0	31.8	30.2	0.168	70	121.1	75.3	20.0
26	29.729	30.101	*29.441	34.5	39.6	31 0	32.4	0.185	92	110.5	42.5	20.0
27	29.843	29.978	29.676	37.0	43.2	30 0	21.9	0.118	53	110 5	65.4	19.5
28	30 091	30.129	29 981	40.5	51.1	27.8	23 9	0.130	52	119.7	74.6	16.6
29	30.175	30 321	30.103	38.7	51.9	28.3	23 4	0.127	55	118.0	74.5	17.5
平均 Means.	30.049	...	...	36.9	...	...	26.0	0.144	66	...	...	...
至極 Max. & Min.	...	30.363	29.441	...	53.7	17.0	...	...	...	128.8	85.3	5.8

凡例

一晴雨計ハ氷點及海面ニ改正ス

一寒暖計ハ都テ華氏ノ度表ヲ用フ

一露點、濕氣、水氣張力、ハ燥濕兩球寒暖計ノ實驗ヨリ算出ス

一風ノ方向及速力ハ自記驗風儀ヲ以テ之ヲ測ル而シテ方向ハ八點ニ分チ速力ハ英里ヲ以テ算ス

一天候ノ表中降雨、降雪、靄霧、雲ノ種類ハ悉皆觀望ノ時數ヲ掲ゲ陰部ハ一日間全陰ヲ十トシ他ハ之ニ比例ス

又雨雪ノ水積ハ毎午前九時ニ實驗シ英寸ヲ以テ之ヲ示ス

一磁氣偏差ハ連日午前七時傾差及地平磁氣力ハ連月兩回之ヲ觀測ス

一此觀測ノ用器ハ偏差儀傾差儀及「ユーニファイラ」磁氣儀ナリ

一偏針角ノ觀測ニ於テ兩磁竿中心ノ相距ハ一、三英尺トス

一搖振時ノ觀測ニ用フル磁竿ノ尺度一割分ノ價ハ二分、三七ナリ

NOTE.

The Barometer readings are reduced to freezing point (32° F) and sea level.

Dew point, Humidity and Elastic force of Vapour are deduced from the readings of the dry and wet bulb thermometers.

Direction and Velocity of Wind are measured by Beckley's anemograph.

The numbers under the headings of Rain, Snow, Fog and the kinds of Cloud (C. K. S. N. or Rain) denote how many, out of eight observations made in a day, are either of them.

The portion of sky obscured is determined by estimation after a careful scrutiny of the clouds or sky. A clear sky is denoted by 0, and a total obscuration by 10.

The amount of Rain and Snow are measured at 9 a. m.

The Magnetic declination is observed at 7 a. m. every day, the inclination and the horizonta intensity twice a month, the instruments in use being Declinometer, Inclinometer, and Unifilar Magnetometer. *

* The apparent distance between the centers of the deflecting and the suspending magnets in the observation of deflection = 1. 3 feet.

The angular value of one scale division of the vibration magnet = 2′.37.

氣象及磁氣月報

東京

海軍水路部觀象臺

明治二十一年二月

MONTHLY REPORT

OF THE

METEOROLOGICAL AND MAGNETICAL OBSERVATIONS,

DURING

FEBRUARY, 1888,

AT THE

NAVAL OBSERVATORY,

IN THE

HYDROGRAPHIC OFFICE.

TOKIO.